REMARKS
Reconsideration And Allowance
Are Respectfully Requested.

Claims 1-12 are currently pending. Claims 1 and 2 have been amended. Claim 11 has been canceled as its subject matter is now a part of claim 1. No claims have been added. No new matter has been added. Reconsideration is respectfully requested.

Claims 1-12 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Examiner has deemed the recitation "less than 10% tackifier by weight" to be indefinite. With this in mind, claims 1-12 have been amended in an effort to conform with §112. Applicant, therefore, respectfully requests that the outstanding rejection be withdrawn.

With regard to the rejection based upon prior art, claims 1-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,215,164 to Bowser (Bowser) or U.S. Patent No. 5,855,972 to Kaeding (Kaeding) or U.S. Patent No. 6,491,992 to Koizumi et al. (Koizumi) each taken alone and in the alternative. These rejections are respectfully traversed in view of the preceding amendments and the remarks which follow.

In particular, independent claim 1 defines a sealing strip composition characterized by improved compression resistance and low moisture vapor transmission rates whereby no spacer or moisture barrier is present therein. The composition is comprised of a single component comprising a polymeric base material, a cross linking agent, an adhesion promoter, and a tackifier. The polymeric base material includes in combination compounds chosen from the group consisting of polyisobutylene copolymers, polyisoprene copolymers, polyisobutylene polymers, brominated olefin polymers, butyl rubber copolymers, ethylene-propylene polymers, polysulfide polymers, polyurethane polymers, and styrene. The cross linking agent includes compounds chosen from the group consisting of divalent metal oxides, divalent salts of organic fatty acids, organic fatty acids,

zinc oxide, zinc stearate, stearic acid, zinc octoate, tin octoate, and calcium stearate. The use of any of the specified cross linking agents and adhesion promoters in combination with a tackifier results in a sealing strip offering improved compression and adhesion.

Bowser is distinguished from the claimed invention in that neither Bowser nor the cited prior art disclose or suggest a sealing strip composition having the claimed combination of cross linking agents, adhesion promoters, tackifier. Nor does the cited prior art give reasons for such a combination. The claimed combination results in a sealing strip composition offering improved compression and adhesion characteristics. This allows the sealing strip composition to be used in the fabrication of insulating glass structures without the need for additional spacers and vapor barriers.

This mechanism is highly distinguishable from that disclosed and contemplated by Bowser as the following remarks indicate. In particular, Bowser suggests tackifiers may be included with the sealant composition. In contrast, in one embodiment of the invention the claimed sealing strip composition (Claim 2) requires a tackifier in a limited quantity unanticipated by Bowser. Further, Bowser is distinguished from the claimed invention in that Bowser uses two separate vessels, Part A and Part B. In contrast, the claimed sealing strip composition is achieved in a single reaction vessel in which the ingredients are mixed as a single component with temperature and timing as set forth in the Specification.

Lead oxide is the preferred oxidizer in the system disclosed by Bowser. The lead oxide is utilized to oxidize the paraquinone dioxime resulting in a dinitro compound which becomes the catalyst allowing for reactants A and B to be brought together (that is, cured). It is Applicant's opinion that the mechanism disclosed by Bowser is most probably a free radical mechanism, which is totally different from the displacement (stoichiometric/displacement) mechanism of the claimed invention in which bromine is displaced by the zinc octoate cross linking agent resulting in an ionic intermediate which adds across the double bond of the polymer in an ionic reaction.

Because of the different mechanisms disclosed by Bowser and the claimed invention, the resulting reaction products are very different as seen by the substantially lower moisture vapor transmission rates of the claimed invention as compared to those in the prior art. In addition, while a metal spacer is required in the prior art systems because of the compressibility of the resulting sealants, the present sealing strip composition does not require a metal spacer due to its internal strength resulting from the cross linked system of the claimed invention. In short, the claimed system is stronger and less susceptible to deformation or compression, and because of the lower vapor transmission rates, does not need a vapor barrier. It is only through the synergy of the claimed polymeric base material, the cross linking agent, and the tackifier that the present invention is capable of significantly reducing moisture vapor transmission rates while also increasing internal strength.

As the Examiner notes, Bowser does disclose an oxidant. However, Bowser's oxidant is utilized to initiate a free radical reaction, while the zinc octoate of the claimed system is utilized as a cross linking agent (not as an oxidizing agent). Use of the zinc octoate as a cross linking agent allows the zinc octoate to function as a displacing agent which permits an ionic reaction to proceed by displacement of the bromine atoms within the polymeric base material.

In view of the vast differences between the claimed invention and the compositions disclosed in the cited prior art, it is our opinion that amended claim 1 overcomes the prior art of record and Applicant respectfully requests that the rejection be withdrawn. With regard to those claims dependent upon independent claim 1, they are believed to overcome the prior art of record for the reasons presented above.

Further to remarks presented above with regard to independent claim 1, claims 1-12 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over Kaeding alone or in combination with Koizumi or Bowser. However, neither Kaeding nor the cited prior art disclose or suggest a sealing strip composition having the claimed combination of cross linking agents, adhesion promoters, and tackifier. Further, the Office Action indicates that the limitation now found in claim 2 "of less than

10% tackifier is obvious because it is obvious to reduce or eliminate an ingredient and lose its known function." However, Kaeding and the cited prior art do not provide reasons for limiting the tackifier as claimed and, in fact, teach away from the advantages resulting from this limitation.

Specifically, Kaeding discloses the use of a vapor barrier. This is contrasted with the claimed system which does not disclose the use of a vapor barrier because the claimed invention provides for extremely low moisture vapor transmission rates and does not require a barrier such as that disclosed by Kaeding. Kaeding teaches that in order to prevent compression a "stop" is required (Kaeding refers to "staples" as a spacer; See Column 3, line 63). Those skilled in the art will understand that a "stop" refers to an external addition (a plastic or metallic material) to stop compression (See Column 3, line 10 and Column 3, line 60).

In addition, while Kaeding uses "Exxpro", he mixes it with an amino silane (which is a cross linking agent). In Kaeding, the silane is substantially involved in cross linking. In the claimed system, the silane is minimally involved in cross linking. In addition, Kaeding uses one terpolymer ("Exxpro") which is grafted with a silane. The claim system uses two polymers, one of which is Exxpro, a terpolymer, and the other is polyisobutylene.

With this in mind, and further to the reasons presented above with regard to independent claim 1, claims 1-12 are believed to overcome the prior art of record and Applicant respectfully requests that the rejections relating thereto be withdrawn.

Further to remarks presented above with regard to independent claim 1, claims 1-12 stand rejected under 35 U.S.C. § 103 (a) as being unpatentable over Koizumi alone or in combination with Bowser or Kaeding. However, Koizumi is based upon U.S. Patent Application Serial No. 09/420,410 and has an earliest effective 102(e) date of October 20, 1998. As shown in the attached Declaration in Accordance with 37 CFR 1.131, Applicant conceived of the invention embodied in the above referenced patent application at least as early as between October 1997 and January 1998. As such, the rejection based upon prior art is traversed and Applicant respectfully requests that the rejection be withdrawn.

As discussed in MPEP 715, a prior art reference may be predated by showing conception of the invention prior to the effective date of the reference coupled with due diligence from prior to the reference date to a subsequent (actual) reduction to practice or conception of the invention prior to the effective date of the reference coupled with due diligence from prior to the reference date to the filing date of the application. The attached Declaration shows that Applicant conceived of the sealing strip composition embodied in the present application at least as early as between October 1997 and January 1998 and, with due diligence, reduced the invention to practice.

In view of the fact that Koizumi has an earliest effective date of October 10, 1998, Applicant's conception date of at least as early as between October 1997 and January 1998, combined with reduction to practice with due diligence, precedes the effective date of Koizumi and Applicant respectfully requests that the rejection based upon Koizumi be withdrawn.

In further argument against the use of Koizumi in the present case, neither Koizumi nor the cited prior art disclose or suggest a sealing strip composition having the claimed combination of cross linking agents, adhesion promoters, and tackifier. Further, the Office Action indicates that the limitation now found in claim 2 "of less than 10% tackifier is obvious because it is obvious to reduce or eliminate an ingredient and lose its known function." However, Koizumi and the cited prior art does not provide reason for limiting the tackifier as claimed and, in fact, teaches away from the advantages resulting from this limitation.

Specifically, Koizumi discloses the use of a a thermoplastic elastomer as a sealing material and spacer. In contrast, the increase in adhesive strength of the present invention eliminates the need for additional spacers or vapor barriers. As with the other prior art references cited, Koizumi fails to disclose or suggest the claimed combination of cross linking agents, adhesion promoters, and tackifier. Further, Koizumi fails to disclose use of a 10% tackifier by weight (Claim 2) and teaches use of a spacer or vapor barrier. Nothing in the prior art suggests elimination of a spacer or vapor barrier is desirable, nor does the prior art teach how to eliminate these components if it were desirable. The prior art includes spacers and vapor barriers, failing to render the present invention

obvious. Further, any combination of the prior art cited fails to suggest the present invention is obvious.

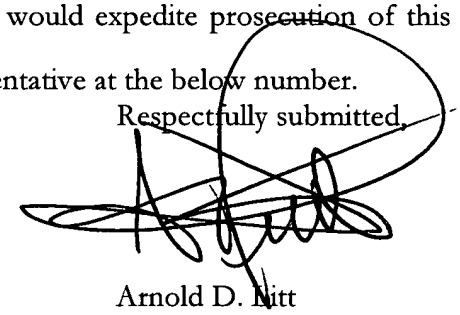
With this in mind, and further to the reasons presented above with regard to independent claim 1, claims 1-12 are believed to overcome the prior art of record and Applicant respectfully requests that the rejections relating thereto be withdrawn.

Claims 1-12 stand provisionally rejected under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1-19 of copending Application No. 10/744,748. With this in mind, Applicant submits the attached Terminal Disclaimer in compliance with 37 CFR 1.321. As such, the double patenting rejection is believed to be overcome and Applicant respectfully requests that it be withdrawn.

It is believed that this case is in condition for allowance and reconsideration thereof and early issuance is respectfully requested.

If it is felt that an interview would expedite prosecution of this application, please do not hesitate to contact applicants' representative at the below number.

Respectfully submitted,



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